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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/595,410 | 06/16/2000 | Hu Yang | 2039.007400 | 1569 |

7590 09/06/2002

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EXAMINER

MULLIS, JEFFREY C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1711

13

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MC 13

Office Action Summary

Application No.

09/595,410

Applicant(s)

YANG ET AL.

Examiner

Jeffrey C. Mullis

Art Unit

1711

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 9-22, 25, 26, 28-50, 52-62, 64-72 and 74-78 is/are pending in the application.
- 4a) Of the above claim(s) 4, 8, 23, 27, 51 and 73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9-22, 25, 26, 28-50, 52-62, 64-72 and 74-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit 1711

All remaining rejections and/or objections follow.

The Examiner acknowledges applicants' claim for priority to Serial No. 09/575,094 filed on May 19, 2000 as a continuation-in-part thereof.

Claims 1-3, 6-7, 9-22, 25-26, 28-50, 52-62, 64-72 and 74-78 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

It is not clear what the entire scope of "oxygen scavenger polymer" is since any organic material will react with oxygen given enough time and therefore could be viewed as an oxygen scavenger.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, ~~6~~-7, 9-22, 24-26, 28-50, 52-72 and 74-78 are rejected under 35 U.S.C. § 103(a) as being unpatentable over

Art Unit 1711

Bansleben et al. (USP 6,255,248) in view of Cahill et al. (USP 6,083,585).

See the previous Office action at page 3 lines 10 et seq.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 6-7, 9-22, 25-26, 28-50, 52-62, 64-72 and 74-78 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4-11, 15, 17-27, 30, 37, 41, 43-66, 70, 71, 74, 76-80, 84, 86-88, 90-98, 102-113 and 115 of copending application Serial No. 09/666,642. Although the conflicting claims are not identical, they are not patentably distinct from each other because the species of each application overlap and therefore choice of one specie over another would have been obvious in the expectation of adequate results.

Art Unit 1711

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants' arguments filed 6-10-02 have been fully considered but they are not deemed to be persuasive.

Applicants argue that one of ordinary skill in the art will understand that an organic material which would not be useful in a packaging application will not be an oxygen scavenging polymer as the term is used herein. However even materials with no scavenging ability whatsoever but having barrier properties are used in packaging applications. Therefore the question of oxygen scavenging rate would not be useful in determining what would be an oxygen scavenging polymer and what would not be an oxygen scavenging polymer.

With regard to the rejection under 35 U.S.C. § 103 and Bansleben et al., applicants argue that Bansleben does not teach or suggest oxygen scavenging polymers comprising an ethylenic backbone and at least one cycloolefinic pendant group having a structure 1. The Examiner does not agree with this since Bansleben et al. discloses numerous examples according to his invention of polymers having 4-vinyl cyclohexene units such are embraced by applicants' structure I. Note Examples 19-28 in Table 2 in this regard. While it is true that Bansleben requires that strained cyclic alkylene units be present, the instant

Art Unit 1711

claims do not exclude such but merely require that units of structure I be present. Applicants argue that in the present invention polymers having units of the type of structure I provide oxygen scavenging ability. However this is also the case in Bansleben. Note column 3 lines 54-61 where patentees clearly disclose that vinyl cyclohexene mer units may be incorporated (along with patentees' cycloalkylene units) and that "other mer units which provide oxygen scavenging properties may also be employed". It is clear then that patentees view the 4-vinyl cyclohexene units as providing oxygen scavenging ability in addition to the oxygen scavenging ability in patentees' strained cyclic alkylene units. Lastly, there is nothing in the instant claims which indicates that the structure of unit I provides the oxygen scavenging ability but in any case as set out above, patentees (Bansleben) do teach that 4-vinyl cyclohexene provides additional oxygen scavenging ability and even provides examples of such polymers according to patentees' invention.

With regard to Cahill et al., this reference has been used only for its teaching of block copolymers containing segments of PET and polybutadiene which are cross-linked. Applicants argue that there are differences between the primary and secondary references. This of course is always the situation in a rejection under 35 U.S.C. § 103 relying upon a primary and secondary reference. However it is noted that the primary

Art Unit 1711

reference as well as the secondary reference both disclose condensation polymers.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Serial No. 09/595,410

-7-

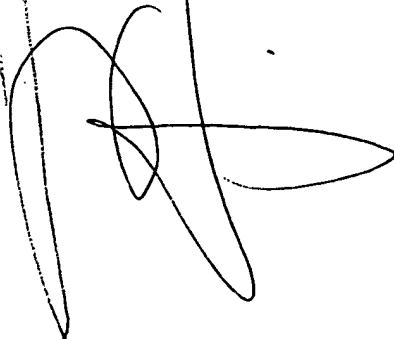
Art Unit 1711

Any inquiry concerning this communication should be directed to Jeffrey Mullis at telephone number (703) 308-2820.

J. Mullis:cdc

September 5, 2002

Jeffrey Mullis
Primary Examiner
Art Unit 1711

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a horizontal line and a loop.